

Remarks

103(a) Rejections

Claims 1 and 3-6 have been rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 5,651,329 ("van den Berg '329") in view of U.S. Patent Nos. 5,425,385 ("Kuta"), 6,089,242 ("Buck"), 6,323,033 ("van den Berg '033") or U.S. Patent Application No. 2004/0007255 ("Labib"). Claim 2 has been rejected over this art and in view of U.S. Patent Nos. 2,558,628 ("Redin") and 6,341,612 ("Duckett").

The Office Action concludes that it would be obvious to one having ordinary skill in the art to modify the device of van den Berg '329 to include a flow rate sensor as in Kuta. It is respectfully submitted that this is incorrect.

First, the Office Action appears to regard the flow rate sensor of claim 1 as a functional limitation (see top of page 3 of the Office Action). The flow rate sensor of claim 1 is a structural element located in the fluid return conduit. None of the references suggests locating a flow rate sensor at this location. Kuta places the flow rate sensors upstream of the apparatus being cleaned.

As stated in *Ruiz v. A.B. Chance Company*, 357 F.3d 1270, 1275 (Fed. Cir. 2004):

In making the assessment of differences [between the subject matter sought to be patented and the prior art], section 103 specifically requires consideration of the claimed invention "as a whole." . . . The "as a whole" instruction in title 35 prevents evaluation of the invention part by part. Without this important requirement, an obviousness assessment might break an invention into its component parts (A + B + C), then find a prior art reference containing A, another containing B, and another containing C, and on that basis alone declare the invention obvious. This form of hindsight reasoning, using the invention as a roadmap to find its prior art components, would discount the value of combining various existing features or principles in a new way to achieve a new result — often the very definition of invention.

It is believed that the Office Action has merely found a flow rate sensor in the Kuta reference and inserted it into the van den Berg '329 reference at a location not suggested in the references. It is submitted that this is impermissible hindsight reasoning.

It is also worth noting that in order to establish a *prima facie* case of obviousness, three basic criteria must be met. "First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." M.P.E.P. § 2143 In addition, "there are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." M.P.E.P. § 2143.01 *citing In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998).

It is respectfully submitted that a *prima facie* case of obviousness cannot be established for pending claim 1 (and claims 2-6 that depend thereon) because there is no suggestion or motivation, either in van den Berg '329 or Kuta, or in the knowledge generally available to one of ordinary skill in the art, to combine the teachings of van den Berg '329 and Kuta. In this regard, the nature of the problem to be solved in van den Berg '329 and Kuta are quite different from the present invention. Therefore, one would not be motivated to combine their teachings to solve the problem that is solved by the claimed invention.

With respect to the nature of the problem to be solved in van den Berg '329, attention is directed to column 8, lines 17-22 which state:

To have the rinsing of teat cups 1 effected as suitably as feasible, the temperature of the rinsing liquid is kept as constant as possible during rinsing. For this purpose, temperature sensors 24 and 25 are included in the rinsing circuit 15. These temperature sensors 24 and 25 communicate with the computer 14, which in its turn controls the heater element 22 in the rinsing liquid tank 16.

Thus, the temperature sensor of van den Berg '329 serves to solve the problem of inadequate rinsing liquid temperatures.

Regarding the nature of the problem to be solved in Kuta, this reference states at column 10, lines 5-19:

FIG. 3a shows flow elements 46, 57 and 66 are connected to the control system PLC to monitor the flow of solutions supplied to the wash and sanitize carousels. Flow element 66 monitors the flow of sanitizing solution to the sanitize carousel 20, and flow elements 46 and 57 respectively monitors the flow of wash solution and neutralizer to the wash carousel 10. When the system is running, the preferred flow rates for the sanitizer solution ranges from 35.0 L/min. to 75.0 L/min. The preferred flow rate for the wash solution ranges from 250 L/m to 750 L/m and the flow rate for neutralizer solution ranges from 25.0 L/min. to 40.0 L/min. If the flow rates of the respective solutions vary from the preset rates, an alarm condition will exist and a message will be displayed to the operator.

Therefore, the flow sensors of Kuta serve to solve the problem of plugged wash lines leading into the washer (see column 6, lines 60-68).

In contrast, the flow sensor of the claimed invention solves a different problem. In this regard, as noted at page 18, lines 18-30 in the specification, the detection of a flow rate and an interface between an acidic cleaning composition and the rinse water in the sensor device of the present application can provide control signals to the programmable logic controller to close the acid return valve in a calculated period of

time and to open the drain valve in another calculated period of time such that minimal rinse water enters the acid tank and minimal acidic cleaning composition enters the drain. Thus, the use of a flow sensor and a physical property sensor in a fluid return conduit between the return valve of the tank and an outlet of the apparatus being cleaned solves this problem with prior art systems.

In summary, when confronted with the problems of rinse water entering a cleaner tank and cleaning composition entering the drain, one would not apply together the teaching of van den Berg '329 with respect to the use of a temperature sensor to avoid inadequate rinsing liquid temperatures and the teachings of Kuta regarding the use of flow sensors to solve the problem of plugged wash lines leading into the washer.

The Office Action further states that apparatus claims must be structurally distinguishable from the prior art. To the extent that this statement is used to support a conclusion that the steps performed by the controller of the claimed apparatus are inherent in the prior art, it is believed that *WMS Gaming Inc. v. International Game Technology* (51 U.S.P.Q.2d 1385) is controlling. In *WMS Gaming Inc. v. International Game Technology*, the court stated that "[a] general purpose computer, or microprocessor, programmed to carry out an algorithm creates 'a new machine, because a general purpose computer in effect becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software.'" 51 USPQ2d at 1391 (quoting *In re Alappat*, 31 USPQ2d 1545, 1558 (en banc)). "[I]f a machine is programmed in a certain new and unobvious way, it is physically different from the machine without that program; its memory elements are differently arranged.'" 51 USPQ2d at 1391 (quoting *In re Bernhart*, 163 USPQ 611,

615-16). Thus, it is submitted that the claimed program steps executed by the computer cannot be disregarded when assessing the novelty and nonobviousness of the claimed invention. In other words, the controller element of claim 1 of the present application provides structural differences from the prior art.

Thus, claim 1 and claims 2-6 that depend thereon are patentable over the art of record.

Conclusion

It is submitted that the application is in condition for allowance. Favorable reconsideration is respectfully requested.

No additional fees are believed to be needed for this response. However, if additional fees are needed, please charge them to Deposit Account No. 17-0055.

Respectfully submitted,

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